

Amendments to the Claims

1. (Currently Amended) A prosthesis, comprising:
a femoral prosthesis configured to cover a portion of the distal end of a femur,
comprising:
a saddle-shaped trochlear groove portion comprising:
a central convexly-shaped groove extended toward a distal end of
the femoral prosthesis;
a convexly-shaped medial portion extending upwardly away from a
first side of the central groove; and
a convexly-shaped lateral portion extending upwardly away from a
second side of the central groove; and
an intercondylar notch portion intersecting the trochlear groove portion,
comprising:
a first wing extending distally and curving posteriorally from the
distal end of the medial portion; and
a second wing extending distally and curving posteriorally from the
distal end of the lateral portion and curving away from the
first wing, wherein the intercondylar notch portion comprises
a posterior portion configured to engage the femur; and
a patellar prosthesis configured to cover a posterior portion of a patella,
comprising a first surface configured to be attached to a patella, and a
second surface configured to cooperate with the trochlear groove and
intercondylar notch portions of the femoral prosthesis to facilitate sliding
engagement between the femoral prosthesis and the patella prosthesis;
wherein the first and second wings are tapered so that adjacent the trochlear
groove portion the wings have a width that is greater than terminal ends of
the wings.

2. (Original) The prosthesis of claim 1 wherein the patellar prosthesis is formed of a different material than the femoral prosthesis.
3. (Original) The prosthesis of claim 1 wherein the first and second wings each have a length that is at least approximately one quarter the length of the trochlear groove portion.
4. (Canceled)
5. (Currently Amended) The prosthesis of claim 1 wherein the first and second wings form from a generally arch-shaped surface.

6-13. (Canceled)

14. (Currently Amended) A knee prosthesis for covering a portion of a patient's patella, and trochlear groove and intercondylar notch of the femur, comprising: a patellar prosthesis configured to cover a posterior surface of a patella; and a femoral prosthesis comprising:
 - a body having a posterior surface configured to cover a portion of the trochlear groove and an anterior surface forming a groove that is cooperable with the posterior surface of the patellar prosthesis;and one of either:
 - a medial extension projecting away from a distal end of the body configured to extend along a medial edge of the intercondylar notch to engage a substantial portion of the medial side of the intercondylar notch; and
 - a lateral extension projecting away from a distal end of the body configured to extend along a lateral edge of the intercondylar notch to engage a substantial portion of the lateral side of the

intercondylar notch;

wherein the medial or lateral extension is configured so that the femoral prosthesis has an edge that terminates along a surface configured to form an articular surface between the patella and the femur without substantially overlying an articular surface between the femur and the tibia; and

wherein the medial or lateral extension has a ~~length and a width at an intersection with the body and a length, wherein and the length is~~ substantially greater than the width.

15. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the medial and lateral extensions intersect the body to form a generally U-shaped configuration.
16. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the medial and lateral extensions form opposing sides of a bearing surface configured to cooperate with the patellar prosthesis.
17. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises the medial extension and the medial extension has a length and a width and the length is substantially greater than the width.
18. (Previously Presented) The knee prosthesis of claim 17 wherein the femoral prosthesis comprises the lateral extension and the lateral extension has a length and a width and the length is substantially greater than the width.
19. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the medial

extension has an inner edge opposing the lateral extension and an outer edge, wherein the outer edge is configured to terminate over the intercondylar notch without extending over an articular surface of the medial condyle.

20. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the medial extension has an inner edge opposing the lateral extension and an outer edge, wherein the outer edge comprises a generally convexly-shaped curve.
21. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the lateral extension has an inner edge opposing the medial extension and an outer edge, wherein the outer edge is configured to terminate over the intercondylar notch without extending over an articular surface of the lateral condyle.
22. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises both medial and lateral extensions and the lateral extension has an inner edge opposing the medial extension and an outer edge, wherein the outer edge comprises a generally convexly-shaped curve.
23. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises the medial portion, and wherein the knee prosthesis comprises a separate medial condyle prosthesis configured to cover an articular surface of a medial condyle, wherein the medial condyle prosthesis has an inner edge configured to cooperate with an outer edge of the medial extension.
24. (Previously Presented) The knee prosthesis of claim 14 wherein the femoral prosthesis comprises the medial portion, and wherein the knee prosthesis comprises a separate lateral condyle prosthesis configured to cover an articular

surface of a lateral condyle, wherein the lateral condyle prosthesis has an inner edge configured to cooperate with an outer edge of the lateral extension.

25 - 49. (Canceled)

50. (Currently Amended) A femoral prosthesis, comprising:

a body having a posterior surface configured to overlie a portion of the trochlear groove and an anterior surface forming a groove that is configured to cooperate with a posterior surface of a patellar prosthesis; and

an intercondylar notch portion connected with the body projecting transverse the body and having a pair of divergent legs, wherein the intercondylar notch portion has outer edges that terminate so that the intercondylar notch portion is configured to overlie at least a portion of the intercondylar notch without substantially extending over an articular surface between a condyle and the tibia, and wherein the intercondylar notch portion has a length and a width at an intersection with the body and a length, wherein and the length is greater than the width..

51. (Previously Presented) The prosthesis of claim 50 wherein the intercondylar notch portion comprises medial and lateral extensions that intersect the body.

52. (Previously Presented) The prosthesis of claim 51 wherein the medial and lateral extensions form opposing sides of a bearing surface configured to cooperate with a patellar prosthesis.

53. (Previously Presented) The prosthesis of claim 51 wherein the medial and lateral extensions project away from the body forming a gap between the medial and lateral extensions.

54. (Previously Presented) The prosthesis of claim 51 wherein the medial and lateral

extensions each have a width and a second end remote from the body, wherein a gap is formed between the second ends and the gap is substantially wider than the width of the medial and lateral extensions adjacent the second ends

55. (Previously Presented) The prosthesis of claim 50 in combination with a separate condyle prosthesis configured to cover an articular surface of a condyle, wherein the condyle prosthesis has an inner edge configured to cooperate with an outer edge of the intercondylar notch portion.
56. (Previously Presented) The prosthesis of claim 50 wherein the intercondylar notch portion comprises first and second wings projecting away from one another, wherein the first wing projects medially and posteriorly and the second wing projects laterally and posteriorly.
57. (Previously Presented) The prosthesis of claim 50 wherein the intercondylar notch portion comprises a first portion that curves laterally and a second portion that curves medially, away from the first portion.
58. (Previously Presented) The prosthesis of claim 50 wherein the body tapers inwardly from medial and lateral directions to form a narrow waist adjacent the intercondylar notch portion.
59. (Currently Amended) A femoral prosthesis, comprising:
a first portion configured to cover a portion of the length of the trochlear groove on the distal end of a femur;
a second portion connected to a distal end of the first portion configured to overlie ~~cover~~ a portion of the intercondylar notch on the distal end of the femur, wherein the second portion comprises:
first and second extensions that flare outwardly from the distal end of the

first portion, wherein the first extension extends transverse the first portion laterally and posteriorally of the first portion, and the second extension extends transverse the first portion medially and posteriorally of the first portion, such that the first and second extensions diverge to overlie a substantial portion of the intercondylar notch;

wherein the first portion tapers inwardly from medial and lateral directions to form a narrow waist adjacent the intersection of the first and second portions.

60. (Previously Presented) The prosthesis of claim 59 wherein the first portion comprises a concave anterior surface configured to cooperate with a convex surface of the patellar prosthesis.
61. (Previously Presented) The prosthesis of claim 59 wherein the first extension tapers so that a distal end of the first extension remote from the first portion is narrower than the width of the first extension adjacent the first portion.
62. (Previously Presented) The prosthesis of claim 61 wherein the second extension tapers so that a distal end of the second extension remote from the first portion is narrower than the width of the second extension adjacent the first portion.
63. (Previously Presented) The prosthesis of claim 61 wherein a lateral edge of the first extension is configured to terminate on a lateral surface of the intercondylar notch so that the first extension does not substantially extend onto a distal surface of a lateral condyle of the femur.
64. (Previously Presented) The prosthesis of claim 59 wherein a medial edge of the first extension is configured to terminate on a medial surface of the intercondylar notch so that the first extension does not substantially extend onto a distal

surface of a medial condyle of the femur.

65. (Canceled)
66. (Currently Amended) The prosthesis of claim 64 60 wherein the first and second extensions each form a generally triangular-shaped profile so that the extensions are configured to terminate within the intercondylar notch of the femur.
67. (Currently Amended) The prosthesis of claim 64 60 wherein an outer edge of one of the extensions is configured to terminate on an outer surface of the intercondylar notch so that the extension does not substantially extend onto an articular surface of a condyle of the femur.
68. (Currently Amended) The prosthesis of claim 64 60 wherein the first and second extensions project away from each other forming a gap between the first and second extensions along at least a majority of the length of the first and second extensions.
69. (Currently Amended) A patello-femoral prosthesis, comprising:
a femoral prosthesis, comprising:
 a trochlear groove portion having a posterior surface configured to overlie
 a portion of a trochlear groove and an anterior surface forming a
 groove;
 an intercondylar notch portion connected with the trochlear groove portion,
 wherein the intercondylar notch portion has outer edges that
 terminate so that the intercondylar notch portion is configured to
 overlie at least a portion of the intercondylar notch without
 substantially extending over an articular surface of a condyle,
 wherein the intercondylar notch portion forms a terminal portion of

~~the femoral prosthesis wherein the intercondylar notch portion comprises a medial or lateral extension that curves along substantially its entire length;~~

wherein the trochlear groove portion tapers inwardly from a medial and lateral direction to form a narrow waist adjacent the intercondylar notch portion; and

a patella portion configured to replace a surface of a patella and cooperate with the groove in the trochlear groove portion.

70. (Previously Presented) The prosthesis of claim 69 wherein the intercondylar notch portion comprises medial and lateral extensions that intersect the trochlear groove portion.
71. (Currently Amended) The prosthesis of claim 70 wherein the medial and lateral extensions ~~eachs curve along substantially its entire length form opposing sides of a bearing surface configured to cooperate with the patellar prosthesis.~~
72. (Previously Presented) The prosthesis of claim 70 wherein the medial and lateral extensions project away from the trochlear groove portion forming a gap between the medial and lateral extensions.
73. (Previously Presented) The prosthesis of claim 70 wherein the medial and lateral extensions each have a width and a second end remote from the trochlear groove portion wherein a gap is formed between the second ends and the gap is substantially wider than the width of the medial and lateral extensions adjacent the second ends
74. (Previously Presented) The prosthesis of claim 69 in combination with a separate condyle prosthesis configured to cover an articular surface of a condyle, wherein

the condyle prosthesis has an inner edge configured to cooperate with an outer edge of the intercondylar notch portion.

75. (Previously Presented) The prosthesis of claim 69 wherein the intercondylar notch portion comprises first and second wings projecting away from one another, wherein the first wing projects medially and posteriorly and the second wing projects laterally and posteriorly.
76. (Previously Presented) The prosthesis of claim 69 wherein the intercondylar notch portion comprises a first portion that curves laterally and a second portion that curves medially, away from the first portion.
77. (Canceled)
78. (Currently Amended) A femoral prosthesis, comprising:
a first portion having a posterior surface configured to overlie a portion of a trochlear groove and an anterior surface forming a groove cooperable with a patella;
a second portion connected with the first portion, wherein the second portion is configured to overlie a portion of the intercondylar notch forming a surface cooperable with the patella;
wherein the second portion flares either medially to overlie a medial portion of the intercondylar notch, or laterally to overlie a lateral portion of the intercondylar notch, and is configured so that the prosthesis has a terminal edge along the intercondylar notch;
and wherein the second portion has ~~a length and a width at an intersection with the first portion and a length, wherein and~~ the length is greater than the width.

79. (Previously Presented) The prosthesis of claim 78 wherein the second portion flares medially or laterally relative to the first portion.
80. (Previously Presented) The prosthesis of claim 78 wherein the second portion flares medially and laterally relative to the first portion.
81. (Previously Presented) The prosthesis of claim 78 wherein a lateral portion of the second portion terminates along an patello-femoral articular surface so that the prosthesis does not overlie an articular surface between the lateral condyle and the tibia.
82. (Previously Presented) The prosthesis of claim 78 wherein a medial portion of the second portion terminates along a patello-femoral articular surface so that the prosthesis does not overlie an articular surface between the medial condyle and the tibia.
83. (Previously Presented) The prosthesis of claim 78 wherein a terminal edge of the second portion spaced apart from the connection of the first and second portions is narrower than the first portion.
84. (Currently Amended) A knee prosthesis for covering a portion of a patient's patella, and trochlear groove and intercondylar notch of the femur, comprising:
a patellar prosthesis configured to cover a posterior surface of a patella; and
a femoral prosthesis comprising:
a body having a posterior surface configured to cover a portion of the trochlear groove and an anterior surface forming a groove that is cooperable with the posterior surface of the patellar prosthesis;
a medial extension projecting away from a distal end of the body configured to extend along a medial edge of the intercondylar

notch; and

a lateral extension projecting away from a distal end of the body
configured to extend along a lateral edge of the intercondylar notch;
wherein at least one of the medial extension and the lateral extension has
a length that is at least approximately one quarter the length
of the body portion, and wherein the medial extension is transverse
the lateral extension;

a separate condyle prosthesis configured to cover an articular surface of a
condyle, wherein the condyle prosthesis has an inner edge configured to
cooperate with an outer edge of the either the medial or lateral extension.

85. (Previously Presented) The knee prosthesis of claim 84 wherein the medial and lateral extensions intersect the body to form a generally U-shaped configuration.
86. (Previously Presented) The knee prosthesis of claim 84 wherein the medial and lateral extensions form opposing sides of a bearing surface configured to cooperate with the patellar prosthesis.
87. (Previously Presented) The knee prosthesis of claim 84 wherein the medial extension has a length and a width and the length is substantially greater than the width.
88. (Previously Presented) The knee prosthesis of claim 87 wherein the lateral extension has a length and a width and the length is substantially greater than the width.
89. (Previously Presented) The knee prosthesis of claim 84 wherein the medial extension has an inner edge opposing the lateral extension and an outer edge, wherein the outer edge is configured to terminate over the intercondylar notch

without extending over an articular surface of the medial condyle.

90. (Previously Presented) The knee prosthesis of claim 84 wherein the medial extension has an inner edge opposing the lateral extension and an outer edge, wherein the outer edge comprises a generally convexly-shaped curve.
91. (Previously Presented) The knee prosthesis of claim 84 wherein the lateral extension has an inner edge opposing the medial extension and an outer edge, wherein the outer edge is configured to terminate over the intercondylar notch without extending over an articular surface of the lateral condyle.
92. (Previously Presented) The knee prosthesis of claim 84 wherein the lateral extension has an inner edge opposing the medial extension and an outer edge, wherein the outer edge comprises a generally convexly-shaped curve.
93. (Previously Presented) The knee prosthesis of claim 84 wherein the condyle prosthesis is configured to cover an articular surface of a medial condyle and has an inner edge configured to cooperate with an outer edge of the medial extension.
94. (Previously Presented) The knee prosthesis of claim 84 wherein the condyle prosthesis is configured to cover an articular surface of a lateral condyle and has an inner edge configured to cooperate with an outer edge of the lateral extension.
95. (Previously Presented) The prosthesis of claim 14 wherein the one of the medial extension and the lateral extension has a length that is at least approximately one quarter the length of the trochlear groove portion.

96. (Previously Presented) The prosthesis of claim 50 wherein intercondylar notch portion has a length that is at least approximately one quarter the length of the body portion.
97. (Previously Presented) The prosthesis of claim 59 wherein the second portion has a length that is at least approximately one quarter the length of the first portion.
98. (Previously Presented) The prosthesis of claim 69 wherein the intercondylar notch portion has a length that is at least approximately one quarter the length of the trochlear groove portion.
99. (Canceled)